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ANNUAL REPORT
OCTOBER 2013 – SEPTEMBER 2014

MEXICO LOW EMISSIONS DEVELOPMENT PROGRAM (MLED)

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PROGRAM OVERVIEW

The México Low Emissions Development Program (MLED) is a three-year project with a two-year option period funded by the Mexico Mission of the U.S. Agency for International Development (USAID). The MLED Program is intended to address México's contribution to global climate change (GCC) and global greenhouse gas (GHG) emissions by assisting its Federal and State Governments, businesses, and other stakeholders in establishing the key enabling conditions and tools needed to participate in emerging international GHG management frameworks and meet obligations under the Copenhagen Accord.

The four main tasks carried out under the MLED Program are:

Task 1: Support the development and implementation of a national Low Emissions Development Strategy (LEDS) and subnational climate change action plans.
The MLED Program works with a broad range of stakeholders to strengthen in-country human and institutional capacity for low-emissions development planning at the federal and subnational levels. Technical assistance includes adapting analytical tools and practices including emissions inventory development, economic and environmental modeling and analysis, sector-specific analysis, and data collection and management. The MLED Program team is also providing analytical support to identify, evaluate, and prioritize actions and programs that could contribute to low emission development such as market potential analysis, marginal abatement cost curves, and co-benefit assessments. Besides, the MLED Program is supporting the Government of México (GOM) in developing policies and programs which facilitate implementation of sector-specific mitigation actions and working to increase access to financing in support of LEDS implementation.

Task 2: Strengthen México's systems to inventory, register and conduct Monitoring, Reporting, and Verification (MRV) of GHG emissions.
The MLED Program provides assistance to the GOM, at Federal and State level, and the Private Sector to facilitate further development and expansion of its existing GHG inventory and monitoring systems and eventually fuse them into a fully-integrated system for measuring, reporting, and verifying GHG emissions and mitigation from all sectors of the economy at the national, state, and municipal, level using practical and reliable internationally accepted methods and protocols. This system will promote more effective and accurate measurement and reporting of emissions, ensure that México is fulfilling its stated mitigation goals, and instill confidence in México's commitments before the international community.

Task 3: Implementation of Clean Energy Interventions supporting LEDS.
The Clean Energy component of the MLED Program supports the overall goal of reducing, mitigating, and/or sequestering GHG emissions by enhancing the GOM's efforts to increase the use of renewable energy and energy efficient end-use technologies among other approaches.

The MLED Program supports the adoption by appropriate stakeholders (federal/subnational governments, domestic users, private industry, etc.) of strategic, high-impact/low-cost, politically feasible actions with potential for substantial GHG reductions while contributing to economic growth. To that end, the MLED Program team is working to: 1) design and carry out high-potential, clean energy pilot projects and 2) identify previously-tested best practices, which have not yet been widely adopted, and bring them to scale through development of programs and policies.

Task 4: USAID/México Global Climate Change Program Coordination.
The MLED Program is the lead mechanism under USAID/México's Global Climate Change (GCC) Program, implemented by a range of partners through diverse mechanisms. The MLED Program team will document

and integrate the results of all these programs, fostering collaboration, information sharing, and close coordination with other USAID/México GCC Program implementers.

SUMMARY OF ANNUAL ACCOMPLISHMENTS

The following is a summary of the Program FY 2014 annual accomplishments in relation to the targets established in the Performance Management Plan (PMP) for FY 2014:

MLED Indicator number	Result	Indicator	Unit	PMP FY2014 Targets	FY2014 Results	PMP Base Period Target	Base Period Results
1	Strengthened policies, plans and regulations for low emissions development.	**4.8.2 - 4**	Number of laws, policies, plans, etc. (cumulative)	2	4	4	6
2	Enhanced institutional and technical capacities.	**4.8.2-14**	Number of institutions (cumulative)	1	11	3	28
3	Development and implementation of models, systems, methodologies, and key tools for LED, MRV, clean energy, and financial mechanisms for investment in clean energy.	**4.8.2-8**	Number of tools, etc. (cumulative)	1	44	9	68
4	Reduction of GHG Emissions (metric tons).	**4.8.2-25**	Tons of CO_2e	10,000	61,360	11,200	62,950
5	Number of people receiving training in global climate change as a result of USG assistance	**4.8.2-6**	Number of people (cumulative)	300 (200 men, 100 women)	622 (480 men, 142 women)	300 (200 men, 100 women)	622 (480 men, 142 women)

The following is a summary of the program accomplishments under the indicators established in the Performance Management Plan (PMP).

1. - Strengthened policies, plans and regulations for low emissions development. (PMP Indicator 4.8.2-4). Unit: Number of laws, policies, plans, etc. (cumulative)

Activity Number	Activity Name	Status
1.2.1	Support the federal government in the design of LEDS institutional and Public Policy instruments (PECC)	Completed
1.2.13	Study for the harmonization of energy information requirements for the Sustainable Use of Energy and Climate Change Laws	Completed
1.3.15	Technical support for Mexico City Climate Change Program. (PACC)	Completed
3.6.26	Clean Air Institute - NAMA Concept Note / Urban Freight Logistics in Mexico	Completed

The final version of the Mexican National Special Program on Climate Change (PECC) was published by SEMARNAT, using key outputs generated by MLED program, including the GHG emissions baseline, the abatement cost curves and the mitigation actions portfolio and analyses. Also, in the course of the development of the PECC, MLED assisted INECC and SEMARNAT with technical advice and expert opinions on several issues regarding the mitigation agenda and their low emissions developments plans and goals, through working meetings, workshops and expert consultations.

MLED delivered to CONUEE a study that contains analyses and proposals for the harmonization of energy information requirements for the Law on the Sustainable Use of Energy and the General Law of Climate Change. MLED also prepared a draft initiative to reform the Law on the Sustainable Use of Energy Law to correct deficiencies and gaps identified in the analysis, helping to ensure that both laws are aligned and compatible in their goals and objectives.

MLED participated in a work session with the Molina Center to discuss the draft of the PACCM. MLED delivered comments to this draft which were used as an input to continue with the elaboration of this document.

As part of the grant activities under Task 3 of the MLED Program, the grantee Clean Air Institute completed a NAMA Concept Note for urban freight logistics in Mexico. Three logistics policies were considered: a) adjusting schedules to promote circulation of commercial vehicles at night; b) legal changes and cooperative agreements to increase the cargo density and reduce empty trips; and c) promotion of the efficient use of underutilized infrastructure and creation of preferential cargo traffic patterns in urban areas.

2. - Enhanced institutional and technical capacities. (PMP Indicator 4.8.2-14). Unit: Number of institutions (cumulative)

Activity Number	Activity Name	Status
1.4.11	AMEAM, A.C. - Awareness campaign on climate change	Completed
2.2.13	Develop 5 sectorial workshops (Sectorial Workshop #2)	Completed
2.2.14	Develop 5 sectorial workshops (Sectorial Workshop #3)	Completed
2.2.15	Develop 5 sectorial workshops (Sectorial Workshop #4)	Completed
3.4.13	Latin America Student Energy Summit	Completed
3.6.2	Watergy México, A.C. - Pilot Project 1 (Training workshop)	Completed
3.6.4	Watergy México, A.C. - Pilot Project 2 (Training workshop)	Completed
3.6.6	Watergy México, A.C. - Pilot Project 3 (Training workshop)	Completed
3.6.8	Watergy México, A.C. - Pilot Project 4 (Training workshop)	Completed
3.6.30	Environmental Law Institute - Energy Efficiency best practices manual for states and municipalities (Morelos workshop)	Completed
3.6.31	Environmental Law Institute - Energy Efficiency best practices manual for	Completed

	states and municipalities (Chihuahua workshop)	
2.2.6	Develop 4 training courses on MRV. (Training Course #1)	Cancelled
2.2.7	Develop 4 training courses on MRV. (Training Course #2)	Cancelled
2.2.8	Develop 4 training courses on MRV. (Training Course #3)	Cancelled
2.2.9	Develop 4 training courses on MRV. (Training Course #4)	Cancelled

As part of grant activities under Task 1 of the MLED Program, the Grantee AMEAM, A.C. carried out a media campaign to promote a climate change seminar to be held at the "Universidad Autónoma del Estado de Morelos". The objective of this training is to train the trainers which will have the responsibility to impart knowledge in climate change related subjects to different sectors of society.

Three workshops were delivered during the first quarter as part of the MRV capacity building effort. The first two workshops were offered to the power sector (FIDE and CFE) and the third one was delivered as part of the MLED technical assistance to the Morelos State Government.

MLED supported the Latin American Student Energy Summit (LASES) with a co-sponsorship of their event in Mexico City, assistance in covering simultaneous translation and with a workshop presentation on opportunities in low emissions strategies and energy efficiency. The LASES gathered 240 multidisciplinary postsecondary students from across Latin America and the Caribbean to understand and discuss the key energy issues within their region, and to further comprehend them within the larger context of the existing and future global energy dynamics.

As part of the grant activities under Task 3 of the MLED Program, the grantee “Watergy México, A.C.” carried out four training workshops on energy efficiency in potable water pumping and distribution systems as part of pilot projects in four states: 1) Hidalgo; 2) Tamaulipas; 3) Guerrero; and 4) Campeche. A total of 14 state water agencies were represented among the attendees.

As part of the grant activities under Task 3 of the MLED Program, the grantee “Environmental Law Institute” completed two workshops in Chihuahua and Morelos States, aimed to build the capacity and increase knowledge of municipal authorities to comply with energy efficiency laws and policies, as well as identify and develop best practices for the achieving energy efficiency in the provision of municipal public services.

MLED cancelled the following activities related to this indicator:

- Activities 2.2.6 through 2.2.9 because the previous workshops developed with FIDE showed that building capacity in theoretical aspects of MRV are only required during the design and implementation of mitigation actions, and not as a stand-alone activity. In the coming year, MLED plans to work with FIDE on MRV activities for specific mitigation activities under implementation.

3. - Development and implementation of models, systems, methodologies, and key tools for LEDS, MRV, clean energy, and financial mechanisms for investments in clean energy. (PMP Indicator 4.8.2-8). Unit: Number of tools, etc. (cumulative)

Activity Number	Activity Name	Status
1.2.12	Develop 2 audiovisual materials to disseminate the National Climate Change Strategy on the Internet	Completed
1.4.1	Colegio de Ingenieros Ambientales de México, A.C. - Update of Veracruz state GHG emissions inventory	Completed
1.4.2	Colegio de Ingenieros Ambientales de México, A.C. - Information analysis for the emissions baseline projections	Completed

1.4.7	Amigos de Sian Ka'an, A.C. - Online MRV System for CO_2e emissions reduction in the tourism sector in Quintana Roo	Completed
2.1.10	Analysis of carbon markets current status and trends	Completed
2.2.1	Develop 4 training courses on MRV. (Develop teaching materials for the four courses, which are listed in 2.2.6—2.2.9)	Completed
2.2.5	Develop online training module for use in IGS online training	Completed
2.3.4	Develop a system to register and monitor the GHG inventories and mitigation from the companies and institutions in the Programa GEI	Completed
2.3.6	Application of standards for accounting and monitoring of mitigation goals monitoring (EMM) and the development of Mitigation Policies and Actions (EPAM) in the 2013-2018 PECC.	Completed
1.2.5	National Climate Change System: Integration and Coordination of Inter-institutional Mechanisms for the Deputy Ministry of Planning and Climate Policy (SEMARNAT)	Completed
1.4.3	Colegio de Ingenieros Ambientales de México, A.C. - Tool Development	Completed
1.4.4	Colegio de Ingenieros Ambientales de México, A.C. - Emissions Baseline Calculation	Completed
1.4.6	Amigos de Sian Ka án, A.C. - Technical document with mitigation measures and potential reduction of CO_2e for Quintana Roo tourism.	Completed
3.1.3	Development of a model of economic and financial assessment of NAFIN - DCA guarantee program.	Completed
3.1.11	Strategy to enhance the PAEEEM at FIDE´s regional offices	Completed
3.1.13	Strategy for enhancing FIDE PAEEEM for the second half of 2014.	Completed
3.2.3	Solid Waste Management of Mexico City's Central Market (CEDA)	Completed
3.2.14	Energy Efficiency Project on SG&DS in the Industrial Sector: (Energy Audit Company 4)	Completed
3.2.15	Energy Efficiency Project on SG&DS in the Industrial Sector: (Energy Audit Company 5)	Completed
3.2.17	Energy Efficiency Project on SG&DS in the Industrial Sector: (Energy Audit Company 7)	Completed
3.2.18	Energy Efficiency Project on SG&DS in the Industrial Sector: (Energy Audit Company 8)	Completed
3.2.20	Energy Efficiency Project on SG&DS in the Industrial Sector: (Energy Audit Company 10)	Completed
3.2.21	Flagship Clean Energy Project with GDF SEDESA on EE/RE in the Health Sector of Mexico City: (Energy Audit and Solar Hot Water System Analysis)	Completed
3.2.30	Casa Morelos Energy Audit	Completed
3.3.1	Nationally Appropriated Mitigation Action on CEMENT Sector.	Completed
3.6.1	Watergy México, A.C. - Pilot Project 1 (Audit)	Completed
3.6.3	Watergy México, A.C. - Pilot Project 2 (Audit)	Completed
3.6.5	Watergy México, A.C. - Pilot Project 3 (Audit)	Completed
3.6.7	Watergy México, A.C. - Pilot Project 4 (Audit)	Completed
3.6.9	Watergy México, A.C. - Pilot Project 5 (Audit)	Completed
3.6.10	Watergy México, A.C. - NAMA pre-feasibility study	Completed
3.6.13	Terra Peninsular, A.C. - Prefeasibility study for the development of a solar photovoltaic system at Sta. Catarina.	Completed
3.6.14	Terra Peninsular, A.C. - Prefeasibility study for the development of a solar photovoltaic system at San José de la Zorra	Completed

3.6.15	Terra Peninsular, A.C. - Management protocols and procedures to install a solar photovoltaic system.	Completed
3.6.16	Centro Interdisciplinario para la Prevención de la Contaminación, A.C. - Energy Efficiency Audit of Public Lightning in Oaxaca de Juarez.	Completed
3.6.17	Centro Interdisciplinario para la Prevención de la Contaminación, A.C. - Audit in the Oaxaca de Juarez transport sector.	Completed
3.6.18	Centro Interdisciplinario para la Prevención de la Contaminación, A.C. - Energy Efficiency Audit of a government building in Oaxaca de Juarez (building 1)	Completed
3.6.19	Centro Interdisciplinario para la Prevención de la Contaminación, A.C. - Energy Efficiency Audit of a government building in Oaxaca de Juarez (building 2)	Completed
3.6.20	Centro Interdisciplinario para la Prevención de la Contaminación, A.C. - Energy Efficiency Audit of a government building in Oaxaca de Juarez (building 3)	Completed
3.6.21	Centro Interdisciplinario para la Prevención de la Contaminación, A.C. - GHG Emissions Audit on a Landfill in Oaxaca de Juarez	Completed
3.6.23	Centro Interdisciplinario para la Prevención de la Contaminación, A.C. - Renewable Energy (solar and mini-hydro) generation potential assessment	Completed
3.6.24	Centro Interdisciplinario para la Prevención de la Contaminación, A.C. - Replication methodology for 3 cities similar to Oaxaca de Juarez	Completed
3.6.27	Watergy México, A.C. - Tool for the development of energy audits for water pumping systems and formats for automatic process.	Completed
3.6.28	Watergy México, A.C. - Manual for an energy efficiency and comprehensive hydraulic project on a water and sanitation system	Completed
1.1.2	Implementation Barriers of PECC2 mitigation options	Cancelled
1.4.5	Colegio de Ingenieros Ambientales de México, A.C. - Mitigation scenarios in the State of Veracruz	Terminated
2.1.4	Propose improvements to the guide to elaborate state GHG inventories	Cancelled
2.1.8	Develop a business LEDS linked to the national institutional and regulatory framework, using Grupo México as an example.	Cancelled
2.3.3	Develop a platform to implement systems to monitor progress in achieving PEACC mitigation goals	Cancelled
2.3.5	Develop a prototype MRV system for NAMAs	Cancelled
2.3.7	Implement MRV systems for PEACC mitigation goals and actions (Task 1) and NAMAs and energy audits (Task 3)	Cancelled
2.3.9	Energy Efficiency in buildings – Cities	Cancelled
2.4.1	Develop a strategy to strengthen verifying capacity through the increased availability of verifiers, to support the processes established in the Climate Change Law	Cancelled
3.1.4	DCA - NAFIN Alliance	Cancelled
3.1.7	Demonstration projects on technologies and sectors identified in the Business/Technology Matrix	Cancelled
3.1.8	Technical Assistance on the Web page design for the guarantees program identified in the Business/Technology Matrix	Cancelled
3.1.9	Development of an application for calculating energy savings in SME's	Cancelled
3.1.12	Comparative analysis for FIDE of the loan conditions granted by commercial banks and financial intermediaries for energy efficiency projects in Mexico.	Cancelled

3.2.4	Strategic advice to the Auction Process for Renewable Energy Projects working group (Auction implementation)	Cancelled
3.2.19	Energy Efficiency Project on SG&DS in the Industrial Sector: (Energy Audit Company 9)	Cancelled
3.2.23	Designing and launching of an employee mobility subprogram under the GDF EMS. (Proposal)	Cancelled
3.2.24	Designing and launching of an employee mobility subprogram under the GDF EMS. (Training materials)	Cancelled
3.2.25	Designing and launching of an employee mobility subprogram under the GDF EMS. (MRV)	Cancelled
3.2.26	Support teleworking subprogram implementation at GDF using the knowhow and materials already developed (financed by USAID in 2012). (Implementation)	Cancelled
3.4.12	Support teleworking subprogram implementation at GDF using the knowhow and materials already developed (financed by USAID in 2012). (Training)	Cancelled
3.5.2	Strategic advice to CRE in the Auction Process for Renewable Energy Projects.	Cancelled
3.6.11	Asociación Nacional de Energía Solar, A.C. - Solar thermal and photovoltaic market census and growth prospective	Terminated
3.6.12	Asociación Nacional de Energía Solar, A.C. – Final workshop for presentation of Census and prospection analysis results	Terminated

MLED was requested by SEMARNAT to provide support for the production of two audiovisual materials regarding the promotion of the National Climate Change Strategy (ENCC). The products were developed according to ToR's.

As part of the grant activities under Task 1 of the MLED Program, the grantee "Colegio de Ingenieros Ambientales de México, A.C." (CINAM) delivered a review of the GHG inventory and performed data analysis for the construction of the GHG emissions baseline for the state of Veracruz.

As part of the grant activities under Task 1 of the MLED Program, the grantee "Amigos de Sian Ka'an, A.C." delivered an Online MRV System for CO_2e emissions reduction based on Myearthcheck for the state of Quintana Roo.

MLED delivered the final report of the study to analyze the carbon markets operating in the State of California. The report shows low short term feasibility for Mexican renewable energy projects to participate in the Californian carbon markets, although it is possible to participate in other voluntary markets like the Verified Carbon Standard (VCS).

MLED completed the MRV teaching materials to be use during training workshops.

The material for the online MRV training module was completed and delivered by MLED to the "Instituto Global para la Sostenibilidad of the Instituto Tecnológico y de Estudios Superiores de Monterrey" IGS-ITESM.

Under MLED direction, systems developer 3SIT completed and delivered the online reporting platform for GHG inventories contracted by MLED for CESPEDES.

MLED developed the pilot MRV approach for one of the actions included in the "Programa Especial de Cambio Climático (PECC) 2014-2018", based on a WRI methodology. The pilot selected is the replacement of existing lighting technologies (incandescent lamps) with more efficient (compact fluorescent lamps) in the residential sector in the state of Michoacan. MLED provided recommendations to SEMARNAT for the PECC 2014-2018 on the key elements for the proper design of policies and actions.

The MLED Program completed the analysis and recommendations of state-level efforts to comply with the General Law on Climate Change and the National Policy on Climate Change in the 32 states of the country, and submitted the study to the Secretariat for Planning and Environmental Policy of SEMARNAT. The results were incorporated in the national Special Climate Change Program (PECC 2013-2018).

As part of the grant activities under Task 1 of the MLED Program, the grantee CINAM developed and delivered a tool for GHG emissions baseline estimation for the state of Veracruz, based on the software LEAP. Using this tool, CINAM prepared the GHG emissions baseline for the state, and projected the Business As Usual (BAU) scenario. This effort was carried out with technical assistance from INECC and in close coordination with INECC, and the environmental ministry of the Veracruz State Government, SEDEMA.

As part of the grant activities under Task 1 of the MLED Program, the grantee “Amigos de Sian Ka án, A.C.” completed a technical document with mitigation measures and potential reductions of CO_2e emissions for the Quintana Roo tourism sector. The actions included in the document are aimed at both the private and public sectors, both of which participated in the process of defining and validating these actions.

The MLED Program and NAFIN developed an economic and financial risk analysis to define the characteristics of the possible alliance with USAID Development Credit Authority in terms of type of guarantee, cooperation mechanism and amount of resources considering two different strategies: 1) portfolio guarantee and 2) individual project guarantee. In addition, MLED supported NAFIN in the design of the development program of this proposal for the next five years. Eventually this proposal did not proceed, due to DCA’s perspective on the relative size of the investment compared to the development benefits that could be achieved.

MLED completed a report of the analysis of measures to enhance the PAEEEM of FIDE Valle de Mexico Norte Regional office, which contains a detailed action plan for immediate implementation.

MLED also prepared a detailed strategy and action plan to increase overall PAEEEM energy efficiency credit placement in 2014. FIDE requested MLED to adapt this strategy to their currently available human and financial resources. Based on these constraints, MLED produced the strategy and implementation plan based on three pillars: simplification of program rules; strategic promotion and marketing; and a pilot of institutional sales.

The report on the analysis of alternatives for the integrated management of 600 to 800 tons per day of urban solid, mostly organic, waste from the Mexico City Central Market (CEDA) was completed and delivered to Mexico City Environmental Ministry. The report is based on on-site resource assessments conducted by MLED in the CEDA in June 2012, which highlighted viable options for extracting energy from municipal solid waste before final disposal.

The consulting firm "Consultores en Energía (COENERGÍA)" delivered the final presentation on the energy audit carried out at a paper mill (Company 4), where the implementation of energy efficiency measures will allow electric energy savings of nearly 500,00 kWh/year (3.9% of annual consumption) and thermal energy savings of 28,000 GJ/year (12.8% of annual consumption). This translates to an economic benefit of MXN 3.2 million per year, with a required investment of MXN 13.8 million, and a simple payback of 4.3 years. The expected GHG mitigation is 1,700 tCO_2e/year.

The consulting firm "Ingeniería Energética Integral, S.A. de C.V." completed an energy audit at another paper mill (Company 5), with potential electric energy savings of 1.14 GWh/year (32.36% of annual consumption). This translates to an economic benefit of MXN 2.2 million per year, with a required investment of MXN 6.9 million, and a ROI of 3.1 years. The expected GHG mitigation is 564 tCO_2e/year. Thermal energy savings are estimated at 22,000 GJ/year (30.51% of annual consumption), an economic benefit of MXN 1.5 million per year, with a required investment of MXN 5.4 million, and a simple payback of 3.6 years. The expected GHG mitigation is 1,217 tCO_2e/year.

The consulting firm "Grupo Ineticaa, S.A. de C.V." completed an energy audit at a large fiberglass company (Company 7), with potential energy savings of 2 GWh/year (15% of annual consumption), an economic benefit of MXN 3.9 million/year, with a required investment of MXN 8.1 million and a ROI of 2.1 years. The audit also identified thermal energy savings of 24,000 GJ/year (25% of annual consumption), an economic benefit of MXN 2.3 million/year, a required investment of MXN 6.5 million, and a simple payback of 2.8 years. The expected GHG mitigation for both electric and thermal measures is 2,532 tCO_2e/year.

The consulting firm “Consultores en Energía (COENERGÍA)" completed an energy audit at a building materials plant (Company 8), resulting in potential electric energy savings of 3 GWh/year, and thermal energy savings of 52,000 GJ/year. This translates to an economic benefit of MXN 6.5 million/year, a required investment of MXN 19.8 million, and a simple payback of 3.1 years. The expected GHG mitigation is 2,610 tCO_2e/year.

The consulting firm "Incóner de México, S.A. de C.V." delivered the final presentation on the energy audit carried out at a plastics company (Company 10). The audit concludes that the implementation of energy efficiency measures will provide electric energy savings of 405 MWh/year (8.5% of annual consumption), with an economic benefit of MXN 672,000/year, a required investment of MXN 1.9 million and a ROI of 2.8 years. The expected GHG mitigation is of 199 tCO_2e/year. The energy efficiency measures identify thermal energy savings of 9,000 GJ/year (9.6% of annual consumption), an economic benefit of MXN 800,000/year, a required investment of MXN 2 million, and a simple payback of 2.6 years. The expected GHG mitigation is 502 tCO_2e/year.

MLED completed an Energy Audit at Villa Children's Hospital, resulting in the decision to install a solar hot water system to cover 35% of the hospital´s water heating requirements.

MLED completed an energy audit in the building that serves as the Seat of Government for the state of Morelos. The energy saving measures identified, will allow a reduction in electricity consumption of 182 MWh/year (27.6% of current consumption) and demand of 51 kW (21% of peak demand), which would result in an economic benefit of MXN 394,210.00/year, with a required investment of MXN 2,113,494 and a simple payback of 5.4 years. The expected GHG mitigation is 89.5 tCO_2eq / year.

MLED considered that the design of the NAMA, supported with international resources, was not a viable option for the cement industry for the following reasons:

- 1) The economic and financial analysis of the projects yielded disappointing results.
- 2) Based on CCAP experience in financing NAMAs with international bodies, it is very unlikely that a NAMA will attract funding to directly support the private sector, especially for most multinational companies that don’t have economic difficulties and whose main goal is not reducing emissions.
- 3) The low participation of companies and experienced difficulty in obtaining accurate and detailed information on the various stages of this work.

However, MLED submitted a draft of this NAMA to CANACEM, the Cement Chamber of Industries, together with the concerns expressed above. We understand that CANACEM has chosen to adopt and support a NAMA based on our draft.

As part of the grant activities under Task 3 of the MLED Program, the grantee “Watergy México, A.C.” completed the following activities:

- Energy audit in the water utility of a municipality at the State of Tlaxcala (Pilot Project 1), where a potential 2% savings was estimated implementation of a pump replacement.
- Energy audit in the water utility of a municipality at the State of Guerrero (Pilot Project 2). It was determined that the implementation of energy efficiency measures will provide electric energy savings of 20.4 GWh (23.5% of annual consumption), which translates to an economic benefit of MXN 50.2 million/year, with a required investment of MXN 55.6 million and a simple payback of 1.2 years. The expected GHG mitigation is 12,733 tCO_2e per year.

- Energy audit in the water utility of a municipality at the State of Guerrero (Pilot Project 3). It was determined that the implementation of energy efficiency measures will result in electric energy savings of 2 GWh (29.7% of annual consumption), which translates to an economic benefit of MXN 5.1 million/year, with a required investment of MXN 3.3 million, and a simple payback of 0.6 years. The expected GHG mitigation is of 1,140 tCO_2e per year.
- Energy audit in the water utility of a municipality at the State of Tamaulipas (Pilot Project 4). It was determined that the implementation of energy efficiency measures will result in electric energy savings of 13 GWh, which translates to an economic benefit of MXN 20.7 million/year, with a required investment of MXN 14.85 million, and a simple payback of 0.72 years. The expected GHG mitigation is of 6,500 tCO_2e per year.
- Energy audit in the water utility of a municipality at the State of México (Pilot Project 5). It was determined that the implementation of energy efficiency measures will result in electric energy savings of 4.5 GWh (17.24% of annual consumption), which translates to an economic benefit of MXN 21.9 million/year, with a required investment of MXN 19.87 million, and a simple payback of 0.9 years. The expected GHG mitigation is 2,250 tCO_2e per year.
- A NAMA concept note for the water and sanitation sector, aimed at mitigating the effects of greenhouse gases through the efficient use of energy and water
- A spreadsheet tool to calculate both the greenhouse gas emissions baseline and to monitor results of energy efficiency projects in potable water pumping systems for urban areas.
- A manual with a methodology for utilities to enable them to develop comprehensive hydraulic efficiency projects, which includes not only the conventional aspects of energy efficiency but also aspects of hydraulic efficiency significantly influencing energy consumption such as operational efficiency and water loss through leakage.

As part of the grant activities under Task 3 of the MLED Program, the grantee “Terra Peninsular, A.C.” completed the following activities:

- Prefeasibility studies for the development of solar photovoltaic systems in Sta. Catarina and San José de la Zorra, Baja California. Project feasibility is limited by social problems, not by legal or technical issues. In the future, the focus will be in guiding communities to resolve internal conflicts.
- Management protocols and procedures to install a solar photovoltaic system.

As part of the grant activities under Task 3 of the MLED Program, the grantee “Centro Interdisciplinario para la Prevención de la Contaminación, A.C.” (CIPREC) completed the following activities:

- Energy audit in public lighting performed in a municipality of Oaxaca, where energy efficiency measures will provide electric energy savings of 259 MWh (30.6% of annual consumption), an economic benefit of MXN 604,000 /year, with a required investment of MXN 417,000, and a simple payback of 0.7 years. The expected GHG mitigation is 128 tCO_2e per year.
- Energy audit in the public transport system for the Oaxaca Metropolitan Area. Implementation of energy efficiency measures will result in savings of 1.36 million liters of gasoline per year (18% of the total consumed by 1,775 moto-taxis in concession). This translates to an economic benefit of MXN 16.5 million/year, with a required investment of MXN 7.2 million, and a simple payback of 0.4 years. The expected GHG mitigation is 3,290 tCO_2eq per year.
- Energy audit performed in a municipality of Oaxaca (building 1) resulting in potential electric energy savings of 14 MWh (27% of annual consumption), an economic benefit of MXN 83,000/year, with a required investment of MXN 119,000, and a simple payback of 1.4 years. The expected GHG mitigation is 7 tCO_2e per year.
- Energy audit performed in a university of Oaxaca (building 2), with potential electric energy savings of 3,300 kWh (5.7% of annual consumption), an economic benefit of MXN 11,000/year, with a required investment of MXN 3,800, and a simple payback of 0.4 years. The expected GHG mitigation is 2 tCO_2e per year.
- Energy audit performed in a hospital located in the Oaxaca metropolitan area (building 3). It identified potential electric energy savings of 225 MWh (8.06% of annual consumption), an economic benefit of

MXN 400,000/year, with a required investment of MXN 922,000 and a simple payback of 2.3 years. The expected GHG mitigation is 111 tCO_2e per year.

- GHG emissions audit for the use of biogas for electricity generation performed in a municipality of Oaxaca. It was determined that the project is not bankable due to very low biogas generation because of the low amount of organic waste disposed in the landfill.
- Renewable energy generation potential assessment for Oaxaca de Juarez Metropolitan area grant projects:
  - Mini-hydro: The river flow in the state of Oaxaca is not suitable for mini-hydroelectric projects.
  - Solar: The installation of photovoltaic and solar hot water systems is profitable. This result does not take into account energy saving measures.
- Replication methodology for the projects developed under the grant with the purpose of replicating the GHG mitigation measures identified.

MLED cancelled the following activities related to this indicator:

- Activity 1.1.2 due to direct instructions by the counterpart. SEMARNAT arguing a lack of human resources to follow up this activity.
- Activity 1.4.5 grantee CINAM, work in the state of Veracruz, by mutual agreement, due to severe schedule slippage and the fact that their deliverables do not meet MLED technical requirements.
- Activity 2.1.4 due to INECC decision not to move forward at this moment.
- Activity 2.1.8 because we were unable to commit a counterpart for its implementation.
- Activity 2.3.3 due to the non-standard nature of the different existing PEACCs and due to SEMARNAT considering restructuring all of them.
- Activity 2.3.5 due to already existing MRV general protocols for NAMAs.
- Activity 2.3.7 as is will be disaggregated into new activities for the states of Morelos and Veracruz.
- Activity 2.3.9 as it was replaced by activity 3.2.30.
- Activity 2.4.1 because before its initiation, the verifying capacity of the country was increased with two new verification entities.
- Activity 3.1.4 due to the fact that the proposed alliance with NAFIN was not consistent with the actual policies of USAID Development Credit Authority (DCA) for Mexico.
- Activity 3.1.7 due to changes in the strategy of NAFIN Financing Program, which has currently eliminated the demonstration projects phase.
- Activity 3.1.8 as NAFIN Clean Energy Financing Program will be based on FIDE's information platform.
- Activity 3.1.9 as the new design of NAFIN's Energy Efficiency Program does not require a system to simulate energy savings.
- Activity 3.1.12 due to the fact that FIDE will work in coordination with commercial banks and not as a competitor in the “Eco Credito Empresarial” Program.

- Activities 3.2.4 and 3.5.2 as they were designed for CFE's "Pequeño Productor" scheme for private sector investment in the Mexican National Electric System. This scheme is no longer valid after the energy sector reform.

- Activity 3.2.19 due to the fact that the counterpart was unwilling to sign a non-disclosure-agreement.

- Activities 3.2.23, 3.2.24, 3.2.25, 3.2.26 and 3.4.12 due to the fact that our counterpart, the Mexico City Government, is prioritizing other SEDEMA activities and does not have the resources to commit to these implementations at the moment.

- Activities 3.6.11 and 3.6.12 of grantee "Asociación Nacional de Energía Solar, A.C." (ANES), by mutual agreement, due to severe schedule slippage and the fact that their deliverables do not meet MLED technical requirements.

4. - Reduction of GHG Emissions (metric tons). (PMP Indicator 4.8.2-25). Unit: Tons of CO_2e

Activity Number	Activity Name	Status
3.2.2	Mitigation Report on the Steam Generation and Distribution Systems Project	In-Progress
3.2.22	Flagship Clean Energy Project with GDF SEDESA on EE/RE in the Health Sector of Mexico City: (Solar thermal demonstration project)	Completed

Implementation of energy efficiency measures at a petrochemical company will result in an estimated 8,028 tCO_2e mitigated during the life of each measure.

Implementation of energy efficiency measures at a recycled paper company will result in an estimated 15,335 tCO_2e mitigated during the life of each measure.

Implementation of energy efficiency measures at a manufacturer of acrylic sheet will result in an estimated 581 tCO_2e mitigated during the life of each measure.

Implementation of energy efficiency measures at a manufacturer of synthetic fibers, will result in an estimated 36,802 tCO_2e mitigated during the life of each measure.

MLED delivered a 185 MJ/year solar water heating system, as a demonstration project, to the authorities of the Ministry of Health, the Pediatric Hospital "La Villa" and the Ministry of Environment. The system is expected to mitigate a total of 615 tCO_2e during the life of the system. The Ministry of Health agreed to replicate the features and benefits of this system to the other 32 hospitals of Mexico City's health network, in compliance with the solar norm and the directives included in Mexico City's Environmental Management System.

5. - Number of people receiving training in global climate change as a result of USG assistance

Activity Number	Activity Name	Status
2.2.13	Develop 5 sectorial workshops (Sectorial Workshop #2)	Completed
2.2.14	Develop 5 sectorial workshops (Sectorial Workshop #3)	Completed
2.2.15	Develop 5 sectorial workshops (Sectorial Workshop #4)	Completed

3.4.13	Latin America Student Energy Summit	Completed
3.6.2	Watergy México, A.C. - Pilot Project 1 (Training workshop)	Completed
3.6.4	Watergy México, A.C. - Pilot Project 2 (Training workshop)	Completed
3.6.6	Watergy México, A.C. - Pilot Project 3 (Training workshop)	Completed
3.6.8	Watergy México, A.C. - Pilot Project 4 (Training workshop)	Completed
3.6.30	Environmental Law Institute - Energy Efficiency best practices manual for states and municipalities (Morelos workshop)	Completed
3.6.31	Environmental Law Institute - Energy Efficiency best practices manual for states and municipalities (Chihuahua workshop)	Completed
2.2.6	Develop 4 training courses on MRV. (Training Course #1)	Cancelled
2.2.7	Develop 4 training courses on MRV. (Training Course #2)	Cancelled
2.2.8	Develop 4 training courses on MRV. (Training Course #3)	Cancelled
2.2.9	Develop 4 training courses on MRV. (Training Course #4)	Cancelled

A total of 76 people were trained as part of the MRV capacity building effort. The attendance for the first two workshops offered to the power sector (FIDE and CFE) was at 51 people; at the third one delivered as part of the MLED technical assistance to the Morelos State Government 25 people were trained.

MLED supported the Latin American Student Energy Summit (LASES) with a co-sponsorship of their event in Mexico City, assistance in covering simultaneous translation and with a workshop presentation on opportunities in low emissions strategies and energy efficiency. The LASES gathered 240 multidisciplinary postsecondary students from across Latin America and the Caribbean to understand and discuss the key energy issues within their region, and to further comprehend them within the larger context of the existing and future global energy dynamics.

As part of the grant activities under Task 3 of the MLED Program, the grantee "Watergy México, A.C." carried out four training workshops as part of pilot projects on energy savings in water pumping systems in four states: 1) Hidalgo; 2) Tamaulipas; 3) Guerrero; and 4) Campeche. A total of 164 participants, including 2 participants from Honduras, 152 men and 12 women, attended the workshops.

As part of the grant activities under Task 3 of the MLED Program, the grantee "Environmental Law Institute" completed two workshops in Chihuahua and Morelos States, aimed to build the capacity and increase knowledge of municipal authorities to comply with energy efficiency laws and policies, as well as identify and develop best practices for the achieving energy efficiency in the provision of municipal public services. A total of 142 participants, 126 men and 16 women, attended the workshops.

MLED cancelled the following activities related to this indicator:

- Activities 2.2.6 through 2.2.9 because the earlier workshops developed with FIDE showed that building capacity in theoretical aspects of MRV is of little value. MRV is best required and taught during the design and implementation of mitigation actions, and not as a stand-alone activity.

KEY DOCUMENTATION

Reference table of documents that support the reported activities and accomplishments:

Activity Number	Download link
1.2.1	http://biblioteca.semarnat.gob.mx/janium/Documentos/Ciga/agenda/PPD02/DO3301.pdf
1.2.12	Not public. On request at info@mledprogram.org
1.2.13	http://www.mledprogram.org/documentos
1.2.5	http://www.mledprogram.org/documentos
1.3.15	Not public. On request at info@mledprogram.org
1.4.1	Not public. On request at info@mledprogram.org
1.4.2	Not public. On request at info@mledprogram.org
1.4.3	Not public. On request at info@mledprogram.org
1.4.4	Not public. On request at info@mledprogram.org
1.4.6	Not public. On request at info@mledprogram.org
1.4.7	www.earthcheck.org
1.4.11	https://www.youtube.com/watch?v=FXqZ2qUnWtQ
2.1.10	http://www.mledprogram.org/wp-content/uploads/2014/04/FINAL-Renovables-Mexico-mercados-CA.pdf
2.2.1	On request at info@mledprogram.org or on USAID TraiNet
2.2.5	Not public. On request at info@mledprogram.org
2.2.13	On request at info@mledprogram.org or on USAID TraiNet
2.2.14	On request at info@mledprogram.org or on USAID TraiNet
2.2.15	On request at info@mledprogram.org or on USAID TraiNet
2.3.4	http://www.geimexico.org
2.3.6	Not public. On request at info@mledprogram.org
3.1.3	Not public. On request at info@mledprogram.org
3.1.11	Not public. On request at info@mledprogram.org
3.1.13	Not public. On request at info@mledprogram.org
3.2.2	Not public. On request at info@mledprogram.org
3.2.3	http://www.mledprogram.org/documentos
3.2.14	Not public. On request at info@mledprogram.org
3.2.15	Not public. On request at info@mledprogram.org
3.2.17	Not public. On request at info@mledprogram.org
3.2.18	Not public. On request at info@mledprogram.org
3.2.20	Not public. On request at info@mledprogram.org
3.2.21	Not public. On request at info@mledprogram.org
3.2.22	Not public. On request at info@mledprogram.org
3.2.30	Not public. On request at info@mledprogram.org
3.4.13	http://www.studentenergysummits.com/latinamerica-partners

3.6.1	Not public. On request at info@mledprogram.org
3.6.2	On request at info@mledprogram.org or on USAID TraiNet
3.6.3	Not public. On request at info@mledprogram.org
3.6.4	On request at info@mledprogram.org or on USAID TraiNet
3.6.5	Not public. On request at info@mledprogram.org
3.6.6	On request at info@mledprogram.org or on USAID TraiNet
3.6.7	Not public. On request at info@mledprogram.org
3.6.8	On request at info@mledprogram.org or on USAID TraiNet
3.6.9	Not public. On request at info@mledprogram.org
3.6.10	Not public. On request at info@mledprogram.org
3.6.13	Not public. On request at info@mledprogram.org
3.6.14	Not public. On request at info@mledprogram.org
3.6.15	Not public. On request at info@mledprogram.org
3.6.16	Not public. On request at info@mledprogram.org
3.6.17	Not public. On request at info@mledprogram.org
3.6.18	Not public. On request at info@mledprogram.org
3.6.19	Not public. On request at info@mledprogram.org
3.6.20	Not public. On request at info@mledprogram.org
3.6.21	Not public. On request at info@mledprogram.org
3.6.23	Not public. On request at info@mledprogram.org
3.6.24	Not public. On request at info@mledprogram.org
3.6.26	Not public. On request at info@mledprogram.org
3.6.27	Not public. On request at info@mledprogram.org
3.6.28	Not public. On request at info@mledprogram.org

PROBLEMS ENCOUNTERED AND ACTIONS TAKEN TO RESOLVE THEM

- **Task 1:**
  - There have been serious delays in the startup of the project entitled "Technical support to the states of Baja California and Coahuila on their PEACC development process", which we are co-financing with the Border Environment Cooperation Council (BECC), due mainly to changes in local government representatives and slow rate of local response. Baja California final results are expected by mid-December 2014, and Coahuila activities are expected to begin in late November 2014.
  - The grantee CINAM project in Veracruz has been delayed due to a personnel change, thus an amendment was signed to defer the delivery of results until the end of April, 2014. Furthermore, CINAM faced the challenge of missing and unreliable data for Veracruz GHG emissions. CINAM used the Veracruz GHG emissions inventory as their basic data source, but found that there was missing information regarding methodologies as well as some unreliable and unofficial sources of information used in the process. CINAM had to work harder and focus more effort on data gathering and strengthen its technical team to do so, in order to improve the quality of information and the transparency of the methodologies used.
  - The task to support the federal government in the design of LEDS institutional and Public Policy instrument, specifically its Special Program on Climate Change (PECC), faced more than one challenge. The task was first assigned to SEMARNAT but at the end of the process was transferred to INECC, implying a change of counterpart personnel involved at the planning and the technical processes. Fortunately, MLED relations with both offices allowed us to stay involved in the process, not only by providing key inputs, but also by being involved in consultations and expert opinions.
- **Task 2:**
  - Although the scope, materials and schedule for the activities requested by FIDE in order to integrate a MRV technical assistance package have been completed as reported last April, the final decision from FIDE to proceed has not been received. Based on the MOU signed with FIDE, efforts to solve this issue will continue in FY2015.
- **Task 3:**
  - In the absence of the Task 3 Leader the Task 3 activities have been spread out among a number of staff, and while there are no significant delays, the centralized leadership of these activities will be beneficial to the project. The Task 3 leader was selected and approved by USAID, and began work in mid-September of this year, participating in the preparation of the Annual Report and the FY2015 Work Plan.

MLED GRANT ACTIVITY

The seven Grants awarded under the FY-2013 Grants Program are now under implementation as described in the table below. All of the grantees except one are to Mexican NGOs.

During the final quarter of FY2014, the grantee "Clean Air Institute" completed its project, and the grant being carried out by "Asociación Nacional de Energía Solar, A.C." was terminated with mutual agreement due to non-compliance with the FOG agreement.

Agreement Number	Grantee Name	Project Name	Status
US0397-PO-13-0284	Amigos de Sian Ka án, A.C.	Desarrollo de una Estrategia Baja en Emisiones para el Turismo en Quintana Roo	In progress
US0397-PO-13-0295	Watergy México, A.C.	Mitigación del Impacto Ambiental Generado por el Excesivo Consumo de Energía Utilizado en el Suministro de Agua a las Poblaciones, a través del Uso Eficiente de la Misma	Completed
US0397-PO-13-0296	Clean Air Institute (US)	NAMA para Logística de Transporte de Carga, Fase 2	Completed
US0397-PO-13-0310	Colegio de Ingenieros Ambientales de México, A.C.	Cálculo de Líneas Base de Emisiones de Gases de Efecto Invernadero (GEI) de una Entidad Federativa y su Proyección a Futuro	Completed
US0397-PO-13-1099729	Asociación Nacional de Energía Solar, A.C.	Censo de Colectores Solares Térmicos y Sistemas Fotovoltaicos Instalados en México de 2011 a 2012 y su Prospectiva a 5 años	Terminated
US0397-PO-13-0299	Terra Peninsular, A.C.	Santa Catarina (Pai Pai) y San José de la Zorra (Kumiai), Comunidades Indígenas de BC como Propuesta Piloto para Desarrollo de Esquemas Replicables en Ejidos Respecto del Uso de Energía Fotovoltaica y Establecimiento de ANPs Comunitarias para Reducir Emisiones de Efecto Invernadero y Establecimiento de Energías Renovables	Completed
US0397-PO-13-0305	Centro Interdisciplinario para la Prevención de la Contaminación, A.C.	Reducción de Emisiones de GEIs en 2 Ciudades del Estado de Oaxaca Equiparables a 37 Áreas Metropolitanas de la República Mexicana	In progress

The eight grants awarded under the FY-2014 Grants Program are now under implementation as described in the table below.

Agreement Number	Grantee Name	Project Name	Status
1104221	Environmental Law Institute	Building Capacity for Low Emissions Development in Municipal Governments in Mexico: Identifying and Enforcing the Applicable Legal Framework and Best Practices for Energy Efficiency in the Provision of Public Services	In progress
1104270	Centro Mario Molina para Estudios Estratégicos sobre Energía y Medio Ambiente, A.C.	Políticas de mitigación en los sectores agrícola y forestal	In progress
1104222	Molina Center for Strategic Studies in Energy and Environment (MCE2)	Demonstration of emissions mitigation measures for diesel-powered off-road mobile sources in Mexico	In progress
105725	Centro Mario Molina para Estudios Estratégicos sobre Energía y Medio Ambiente, A.C.	Transporte Público: regulación, competencia económica y eficiencia ambiental.	In progress
1106595	Instituto Internacional de Recursos Renovables, A.C.	Removing barriers to Greenhouse Gas mitigation in medium scale agricultural livestock activities within Mexico	In progress
1106801	ITDP México, A.C.	Instrumentos de política pública y mecanismos de desarrollo urbano para transitar a ciudades bajas en emisiones en el sector transporte a nivel estatal y municipal	In progress
1106634	Centro de Transporte Sustentable de México, A.C.	Creación de capacidades a nivel municipal para la selección y evaluación de medidas de mitigación en el sector transporte como estrategias de desarrollo bajos en emisiones.	In progress
1106299	AMEAM, A.C.	Educación Ambiental para la Sustentabilidad en Condiciones de Cambio Climático en el Estado de Morelos: Necesidad Urgente de Actuación para Mitigar Emisiones de GEI	In progress

TRAINING INFORMATION

DATE	EVENT	LOCATION	ATTENDANCE	MALE	FEMALE
September 12th and 13th, 2013	Watergy México, A.C. - Pilot Project 1 (Training workshop)	Tulancingo, Hidalgo	56	53	3
October 10 to 11, 2013	Taller "Sistemas de medición, reporte y verificación (MRV) para el Fideicomiso para el Ahorro de Energía Eléctrica (FIDE)"	Mexico City	33	23	10
October 31, 2013	Taller "Sistemas de medición, reporte y verificación (MRV) para la Comisión Federal de Electricidad (CFE)"	Mexico D.F.	18	16	2
November 14th and 15th, 2013	Watergy México, A.C. - Pilot Project 2 (Training workshop)	Ciudad Victoria, Tamaulipas	44	41	3
November 28th and 29th, 2013	Watergy México, A.C. - Pilot Project 3 (Training workshop)	Acapulco, Guerrero	35	32	3
December 3rd and 4th, 2013	Watergy México, A.C. - Pilot Project 4 (Training workshop)	Campeche, Campeche	29	26	3
April 24, 2014	Forum "General Climate Change Act: Challenges and Opportunities to foster a low emissions development in Mexico"	Mexico D.F.	25	17	8
June 19 - 21, 2014	Latin America Student Energy Summit	Mexico City and Temixco, Morelos.	240	146	94
August 8, 2014	Environmental Law Institute - Energy Efficiency best practices manual for states and municipalities (Morelos workshop)	Cuernavaca, Morelos.	47	38	9
August 13, 2014	Environmental Law Institute - Energy Efficiency best practices manual for states and municipalities (Chihuahua workshop)	Chihuahua, Chihuahua.	95	88	7
TOTAL			**622**	**480**	**142**